

Attorney Docket No. 9391-2
Application Serial No. 10/085,526
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This listing of the claims replaces all prior versions in the application.

Listing of Claims:

1. (Previously Presented) Resorbable bone replacement and bone formation material based on porous β -tricalcium phosphate (β -TCP), produced by

- (a) baking a phosphate powder of a chemical composition having residue on baking which yields theoretically chemically pure tricalcium phosphate;
- (b) forming blanks having microporosity using the baked β -tricalcium phosphate (β -TCP); and
- (c) providing the baked blanks with substantially tubular pores, wherein

the β -tricalcium phosphate (β -TCP) is baked at least twice and the formation of the thermodynamically stable adjacent phases of β -TCP is inhibited, wherein the method further comprises;

- (i) powdering a presynthesis product obtained according to step (a),
- (ii) optionally baking the powdered presynthesis product together with phosphate powder according to step (a) and powdering the material obtained and optionally repeating step (ii) at least once;
- (iii) compressing the powdered product obtained in step (i) or step (ii) to form the blanks of step (b) and subjecting the blanks formed to final ceramic baking; and
- (iv) subjecting the baked blanks, at least about 99.5% of which consists of pure β -tricalcium phosphate (β -TCP), to step (c), wherein the baked blanks are resorbable *in vivo*.

2. (Previously Presented) Formation material according to claim 1, wherein the formation material has chemical and crystalline purity, a structure, microporosity and macroporosity that make possible rapid, foreign-body-reaction-free, biochemically orientated integration and resorption in bone.

3. (Previously Presented) Resorbable bone replacement and bone formation material, produced by